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| 09/890,725 | 12/03/2001 | Gerardus Kramer | T7A | 7894 |

7590 06/17/2003
Mark Zovko
36504 28th Ave S
Federal Way, WA 98003

EXAMINER

KERNS, KEVIN P

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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1725

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DATE MAILED: 06/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicant(s)

09/890,725

Applicant(s)

KRAMER ET AL.

Examiner

Kevin P. Kerns

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 May 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 7-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 7-15 is/are rejected.
- 7) ☒ Claim(s) 7 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 06 May 2003 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Specification

1. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or
REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)
- (e) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (f) BRIEF SUMMARY OF THE INVENTION.
- (g) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (h) DETAILED DESCRIPTION OF THE INVENTION.
- (i) CLAIM OR CLAIMS (commencing on a separate sheet).
- (j) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (k) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Claim Objections

2. Claim 7 is objected to because of the following informalities: in the 4th line of the claim, "a" should be added before "longitudinal". Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 14 and 15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 14 and 15 recite the limitation "the said pipes" and "the pipes", respectively. There is insufficient antecedent basis for these limitations in the claims.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 7-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Kazlauskas (US 4,373,125).

Kazlauskas discloses an apparatus provided with a guide means for welding pipes with slightly beveled ends (outwardly diverging walls) to be joined, in which the

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apparatus includes first and second carriages (108,110), which are driven by motor means, and extend approximately 180 degrees, or along half the periphery of the circular pipe in a (selectively) downward direction, with each of the carriages supporting a pair of spaced apart ("side by side") welding heads, or torches, which are movable in the longitudinal direction of the weld groove (abstract; column 1, lines 5-10; column 2, lines 7-28; column 7, lines 30-68; column 8, lines 1-68; column 9, lines 1-2; and Figures 1, 3, and 13-16). Each of the welding heads (A,B,C,D) includes a housing 150 having a motor structure 160 (with a motor shaft pin driver 164) to move the welding electrode 46 closer and further away from the structure to be welded, in addition to means to oscillate the welding electrode transversely across the welding groove (column 9, lines 42-68; column 10, lines 1-68; column 11, lines 1-59; and Figures 1, 3-5, and 17).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
10. Claims 10, 14, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kazlauskas (US 4,373,125) in view of Nelson et al. (US 3,328,556).

Kazlauskas discloses the elements of claim 7 above. Kazlauskas does not specifically disclose a process for which two welding layers are laid in one welding pass.

However, Nelson et al. disclose a process for narrow gap welding, in which thick plates can be welded in a single pass by a plurality of electrodes (on an individual "carriage"), such that welding time and welding material would be reduced upon deposition of a plurality of layers in one pass on thick plates (column 1, lines 13-24; column 2, lines 15-40; column 3, lines 26-41; column 4, lines 40-44; column 6, lines 68-75; column 7, lines 1-18; and Figures 15 and 16).

It would have been obvious to one of ordinary skill in the art at the time the applicants' invention was made to modify the pipe welding apparatus of Kazlauskas, by

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adding the successive accumulation of a plurality of layers, as taught by Nelson et al., in order to reduce welding time and welding material upon deposition of a plurality of layers in one pass on thick plates (Nelson et al.; column 2, lines 19-20; and column 7, lines 14-18).

11. Claims 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kazlauskas (US 4,373,125) in view of Nelson et al. (US 3,328,556) as applied to claim 10 above, and further in view of Friedman et al. (US 4,019,016).

Kazlauskas (in view of Nelson et al.) disclose and/or suggest the elements of claim 1 above. Neither Kazlauskas nor Nelson et al. specifically discloses torch oscillation and the variation of frequency and/or amplitude of the torch oscillations.

However, Friedman et al. disclose welding control systems for an electric arc welding system, in which the programming circuits cause the torch to oscillate back and forth across the weld path, in which both frequency and amplitude are controlled appropriately, such that a high quality weld is obtained (abstract; column 1, lines 54-64; column 3, lines 34-42 and 63-68; column 4, lines 1-23; column 9, lines 9-31; column 12, lines 40-68; column 13, lines 1-39; column 14, lines 1-6; and Figures 1-10).

It would have been obvious to one of ordinary skill in the art at the time the applicants' invention was made to modify the pipe welding apparatus of Kazlauskas, by adding the successive accumulation of a plurality of layers, as taught by Nelson et al., and by further adding the control of frequency and amplitude of the torch oscillations, as

disclosed by Friedman et al., in order to obtain a high quality weld (Friedman et al.; column 3, lines 34-42 and 63-68; and column 4, lines 1-23).

Response to Arguments

12. The examiner acknowledges the applicants' amendment (paper #7) received by the USPTO on May 6, 2003. The proposed drawing corrections are approved by the examiner. Although the objections to the abstract and claims (with the exception of claim 7) have been overcome by the applicants' amendment, the applicants did not address the objection to the specification (see above paragraph 1 -- lack of section headings). The applicants have overcome prior 35 USC 112, 2nd paragraph rejections, but new claims 14 and 15 raise new 35 USC 112, 2nd paragraph rejections (see above paragraph 4). Claims 1-6 have been cancelled, while new claims 10-15 have been added. Claims 7-15 are now under consideration in the application.

13. Applicant's arguments filed May 6, 2003 (paper #7) have been fully considered but they are not persuasive.

With regard to the applicants' arguments on page 10 addressing the apparatus claims 7-9 (for which the same rejection has been maintained), Kazlauskas remains as a rejection under 35 USC 102(b) for claims 7-9, as the applicants' amendment has not narrowed the scope of claim 7. The examiner respectfully asserts that the welding torches lie "side by side" in the longitudinal direction of the weld groove (in Kazlauskas), with this newly added limitation being essentially the same as "at least two welding

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torches lying successively in the longitudinal direction of the weld groove", as written in the original claim language. It is also noted that Kazlauskas shows a plurality of deposited welding layers in Figure 12, although the process to arrive at that condition is not expressly disclosed, necessitating secondary reference(s) for the method claims.

Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The Ashiya et al., Ditschun et al., and Wada et al. references are also cited to show related art.

15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin P. Kerns whose telephone number is (703) 305-3472. The examiner can normally be reached on Monday-Friday from 8:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Dunn can be reached on (703) 308-3318. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-7718 for regular communications and (703) 305-6078 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

KPK
kpk
June 3, 2003


M. ALEXANDRA ELVE
PRIMARY EXAMINER